

USAWC STRATEGY RESEARCH PROJECT

AL QAEDA AS A SYSTEM

by

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ABSTRACT

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With the correct military strategy, the US military can provide the main effort to win the Global War on Terrorism (GWOT) and Col Warden's five-ring model is useful to determine target sets for that effort. Col Warden developed the five-ring model to analyze the sources of power of an enemy and target those sources of power for disruption or destruction. It is necessary to briefly review Col Warden's five-ring theory that looks at leadership, organic essentials, infrastructure, population, and fielded forces as five parts of a system. Although some strategists believe that the five-ring model is applicable only to nation-states, Col Warden suggested it is applicable to non-state organizations such as a terrorist organization even though the target sets and the instruments of national power to affect those target sets may be different than those of a nation-state. Also, some believe that Col Warden's five-ring theory applies to only aerial bombing. It does not, as this paper will demonstrate. A terrorist organization can be analyzed as a system, because to wage violence, a terrorist organization still requires sources of power and logistics. Al Qaeda serves as the example used in analyzing a terrorist organization in the model. In addition, it is important to identify and understand terrorist objectives and terrorist motivations to achieve their goals. This paper is analysis of Al Qaeda as a system and identifies Al Qaeda's subsystems.

AL QAEDA AS A SYSTEM

Al Qaeda is a terrorist organization, but unlike most terrorist organizations it is a multifaceted network that has alliances with numerous violent Islamic extremist groups around the world. Colonel John Warden, in his article *The Enemy as a System*, suggests that a terrorist organization can be analyzed using his five-ring model.¹ The five-ring model is a methodology for analysis in which the five main rings contain subsystems that are unique to each system. A terrorist organization is a system with unique subsystems and Al Qaeda provides a good example of a terrorist organization with unique subsystems.

This paper will demonstrate how the five-ring model can be employed to analyze a terrorist organization using Al Qaeda as a sample. We can analyze Al Qaeda as a system in the same way the five-ring model has been employed to analyze a nation-state as an enemy, even though Al Qaeda differs from the conventional nation-state. The five ring model provides a methodology from which we can identify the complexities of Al Qaeda. In accordance with the five-ring model, we will examine Al Qaeda's leadership, organic essentials, infrastructure, population, and fielded forces.

Al Qaeda as an Enemy System

In any campaign to defeat any enemy, it is helpful to analyze the enemy as a system in which to define and better understand the enemy. A system analysis should reveal what resources an enemy uses, how those resources are used, and how those resources contribute to the enemy's power. Col Warden explains that a system analysis of the enemy should drill down and determine the enemy's subsystems. He wrote, "[W]e must think of the enemy as a system composed of numerous subsystems."² The five-ring model, in examining systems, depicts leadership at the core circled by a ring of organic essentials, surrounded by a ring of infrastructure, encircled by a ring of population, enclosed by the final ring of fielded forces.³

In past wars, most US enemies were nation-states seeking political objectives, but the Global War on Terrorism (GWOT) presents a different enemy. Al Qaeda exists outside the conventional nation-state construct as a non-governmental organization (NGO) that professes violent Islamic extremism as a means to achieve its political ends. Al Qaeda adds another unconventional dimension as an enemy because it is a global network of Islamic terrorist groups scattered across five continents. These networked terrorist groups have at least two common attributes. They are all violent Islamic extremists and they are connected through Al Qaeda. It is their violence against the US and other nations that has marked them as an enemy. The National Strategy for Combating Terrorism states, "Ours is a strategy of direct and continuous

action against terrorist groups, the cumulative effect of which will initially disrupt, over time degrade, and ultimately destroy the terrorist organizations.”⁴ In the GWOT, Al Qaeda is at the forefront of terrorist violence against the US for several reasons. First, they conducted several terrorist attacks against the US: the 1998 US embassies in Nairobi and Dar es Salaam, the *USS Cole* in 2000, and the 9/11 attacks that destroyed the World Trade Center in New York. In addition, they conducted terrorist attacks around the world against US allies and other nations. Finally, they claimed control of the insurgency in Iraq following the US-led invasion of 2003.⁵

Leadership

Leadership is at the core of the five-ring model and has unique leadership subsystems pertinent to the system. In his analysis of a nation-state, Col Warden identifies the nation's leader and that leader's communications capability as the two subsystems. In this examination of Al Qaeda and the subsystems of the leadership ring, the leader, communications and alliances are the subsystems. Communications enable a leader to provide vision and direction to those that manage and direct the organic essentials, infrastructure, population, and fielded forces. Destruction of the Al Qaeda leadership severely disrupts the system. Severing the leadership's communications severs the leader's control of the system, which disrupts the leader's function. Severing the leader's alliances disrupts the leader's legitimacy and support, which in turn disrupts the leader's ability to conduct operations.

Osama bin Laden co-founded and emerged as the leader of Al Qaeda. During the Afghan Soviet war he became popular among the *mujahidin* fighters as a war hero and a philanthropist and he also developed close relationships with several Islamic authorities, emerging as a *mujahidin* leader.⁶ During the final days of the Afghan-Soviet war Sheikh Abdullah Azzam and bin Laden set-up the Afghan Service Bureau to organize and train Arab mujahidin fighters to expel the Soviets.⁷ Eventually, Azzam and bin Laden recruited and trained Muslims from Europe, Asia, and the United States and in the late 1980's founded and chartered Al Qaeda to channel mujahidin into fighting on behalf of oppressed Muslims worldwide.⁸ Following the Afghan-Soviet war, bin Laden eventually had Azzam killed and reconfigured Al Qaeda into a violent Islamic terrorist organization with four political objectives: Removing the US from the Middle East, destroying Israel, removing the apostate governments from all Muslim countries, and re-establishing the Islamic Caliphate across Africa and Asia.⁹ As the leader of Al Qaeda, bin Laden continued to provide vision and direction for the organization. In February 1998, he issued a *fatwa* calling on all Muslims to wage a guerilla war against the US, which would achieve the political objective of ending American presence in the Middle East.¹⁰ Bin Laden's principle deputy is Ayman Muhammad Rabi al Zawahiri because they are of like minds.

They both envisioned terrorist attacks as a means to their end and they were both followers of the same Islamic religious sect called *Salafi*. Al-Zawahiri helped bin Laden structure Al Qaeda and he also wrote the *fatwa* bin Laden issued in 1998.

To understand bin Laden as Al Qaeda's leader, it necessary to understand his culture, biases, paradigms, and heuristics and in doing so know how he will respond to situations, circumstances, events, and attacks against Al Qaeda. This better understanding of bin Laden will also provide an understanding of what US actions he expects. Knowing that he is expecting a particular action from the US, the US can give him what he least expects or does not expect, which will confuse him and disorient him. Once the US acts in a manner he least expects, he will pause and try to understand why the US acted they way they did. His pause for thought will enable the US to hit the Al Qaeda organization again, further confusing him. He will again ponder US actions and react in a way the US can exploit to facilitate his demise. This process is what John Boyd discusses at length in his Observe-Orient-Decide-Act (OODA) Cycle theory, more commonly referred to as the OODA Loop.¹¹ The five-ring model provides a methodology to better understand the leadership by determining the subsystems of Al Qaeda's five rings.

Failure to effectively target subsystems of Al Qaeda combined with a failure to get into bin Laden's OODA Loop during the late 1990's resulted in both a missed opportunity for the US to capture him, and increased public support for him among Islamic people worldwide. Al Qaeda planned, prepared, and executed its first successful operation against the US with two simultaneous bombings of US embassies in Nairobi and Dar es Salaam, on 7 August 1998. The retaliatory US cruise missile attack failed to target effective subsystems of the Al Qaeda system rendering it still functional. The missile attacks instead provided bin Laden with unprecedented international publicity as the leading jihadist among Islamist organizations around the world, which fueled the growth of Al Qaeda.

Communication is necessary for the leadership of any organization to sustain the leader's vision and direction. For example, during the first Gulf War in 1991, the phone lines were a crucial communications node from Saddam Hussein to commanders in Kuwait and Iraq as well as cross communications among Iraqi military commanders.¹² Telephone communications to include radio relay towers, switching centers, telephone exchanges, and the Iraqi communications center in Baghdad were targeted to great effect in disrupting Saddam Hussein's communications.¹³ The destruction of those communications nodes disrupted Iraqi communications, which better enabled US forces to attack Iraqi military positions. Al Qaeda considers communication the "mainstay of the movement for rapid accomplishment."¹⁴ If Al Qaeda communications are disrupted, Al Qaeda's movement and rapid mission

accomplishment are disrupted. Al Qaeda imbeds their communications in commercial networks around the world, which provides a certain amount of security. Al Qaeda also uses cell phones, e-mail, the Internet, and couriers to communicate within its system.¹⁵ Unfortunately, unlike a conventional enemy nation-state, Al Qaeda uses the same commercial communication nodes as the general population and commerce entities around the globe. Destroying these nodes would disrupt international commerce and unlawfully violate the sovereignty of independent nation-states.

Col Warden doesn't specifically address alliances in the leadership ring. In Col Warden's use of his five-ring model as planned for Operation INSTANT THUNDER against Saddam Hussein's Iraq in 1990, allies are excluded.¹⁶ Allies were an unnecessary consideration because Saddam Hussein had no allies during his war with Iran during the 1980s or during his invasion and occupation of Kuwait in 1990.

Alliances are an important subsystem of Al Qaeda's leadership ring. Sun Tzu tells us that the second best strategy is to attack your enemy's alliances.¹⁷ Throughout the period 1987 and 1998, bin Laden built alliances with several Islamist groups that sent deputies to meet with bin Laden in Afghanistan. These deputies returned to their terrorist organizations and advised their leaders to ally with Al Qaeda for the common goal of mobilizing the Muslim populations against the US. In building its anti-American alliance with terrorist groups across Asia and Africa, Al Qaeda also received significant support from several nation-states and NGOs.¹⁸ To sever Al Qaeda's alliance with the Taliban government in Afghanistan, the US military removed the Taliban regime and secured the election of a democratic government. So, Afghanistan now aligns itself with the liberal democracies of the world against terrorism. To disrupt the alliances of NGOs with Al Qaeda such as Islamic charities in the US, the US froze assets and moneys from those NGOs' accounts.

Organic Essentials

In viewing an entity or political organization as a system, the resources required to maintain and develop it are organic essentials. The organic essentials of a nation-state are those facilities and processes that a state requires to survive or grow.¹⁹ For a conventional nation-state, those organic essentials are its government institutions, gasoline and oil refineries, and war materials industries. The organic essentials for Al Qaeda are the resources it exploits to survive and grow as a terrorist organization. However, as a non-governmental system, Al Qaeda has no territory to claim as sovereign from which it can exploit natural resources such as oil or produce manufactured products to trade for weapons. Yet, Al Qaeda as a system requires

organic essentials to continue committing acts of violence. Those organic essentials are money, weapons, false documents, and sanctuaries.

Al Qaeda has no population to tax for the purpose of training and equipping a militia. Yet, Al Qaeda requires money to build a militia of operatives and to train and equip them as well as for its cells to prepare for and execute terrorist attacks. For instance, Al Qaeda spent \$100 million to build its organization in Afghanistan, \$36 million a year to maintain its strength of approximately 3000 members there, and \$50 million to set up weapons, technology, infrastructure, camps, offices, houses, and vehicles.²⁰ Al Qaeda also spent an estimated \$500,000 to organize, plan, and execute the 9/11 attacks.²¹ Initially, bin Laden used his personal finances as seed money to build Al Qaeda. Unfortunately for him, Saudi Arabia revoked his citizenship and froze his Saudi assets in February 1994, but, he had already moved his operations to Sudan, where he created over 30 businesses to generate income for Al Qaeda.²² While in Sudan, he better organized Al Qaeda and created a Finance and Business Committee to further generate financial resources and more income for Al Qaeda.²³

Al Qaeda employs creative financing to acquire, invest, and transfer wealth. Their Finance and Business Committee operates a financial network of support from Islamic foundations and international finance professionals around the world. They established several legitimate institutions including state and privately funded charities, banks, investment firms and companies.²⁴ They also trade in illicit drugs, weapons, cigarettes, diamonds, and gold.²⁵ In addition they produce counterfeit currency and false credit cards. In its military training manual, Al Qaeda provides instruction about producing and using counterfeit currency and counterfeit credit cards.²⁶ Al Qaeda support cells create the counterfeit currency and Al Qaeda operational cells disperse the money into bank accounts registered to Al Qaeda-controlled charities.²⁷ In transferring money, Al Qaeda employs several methods. One method of moving money legally, common in Muslim countries, is the use of *hawalas*, which are money transfers that operate outside formal banking systems.²⁸ Another method of moving money, one which criminal organizations employ, is transferring funds between unregulated banks. A third method to move wealth is by moving diamonds, gold, and bulk currencies in and out of various countries as needed to conduct terrorist attacks.

To disrupt the flow of wealth to Al Qaeda, several measures have been taken. Following the 9/11 attacks, President Bush froze the assets of those individuals and organizations that were designated as financially supporting terrorist organizations.²⁹ Internationally, the Financial Action Task Force, an intergovernmental organization comprised of finance experts from 33 countries, recommended eight measures to disrupt terrorist financing that were adopted as

resolution 1373 by the UN Security Council.³⁰ Also, the US Treasury Department's Financial Crimes Enforcement Network works in coordination with the Justice Department, the State Department, and the Department of Homeland Security to consolidate policies, intelligence data, and enforcement. In addition, The Office of Foreign Assets Control blocked terrorist assets and added more terrorist front organizations to its existing list, which in all totals 2,500 companies and individuals whose assets are to be blocked.³¹ These measures disrupt the movement of funds to Al Qaeda, which limits their ability to finance training for terrorists, terrorist attacks, and care for their operatives. Sources of funding still emanate from Islamic charities, front companies, sympathetic organizations, commercial enterprises, and mosques.³²

Weapons are another organic essential of Al Qaeda because they need them to commit terrorist attacks. In previous wars fighting conventional nation-states, the US interdicted weapons from getting to enemy soldiers and bombed weapons manufacturing plants to stop production of weapons. These campaigns to disrupt the flow of weapons weakened the enemy's ability to fight. In the case of Germany during World War II, the allied air superiority campaign against the Luftwaffe virtually destroyed the Luftwaffe, which posed no threat during the Normandy invasion. Weapons are also an organic essential of Al Qaeda as unconventional enemy because Al Qaeda needs them to survive as a terrorist organization to export violence. Weapons used by Al Qaeda include guns, explosives, and their means of delivery. If it were possible to destroy the weapons before getting into the hands of Al Qaeda cells, the system would be rendered impotent. If it were possible to disrupt the flow of weapons to Al Qaeda cells, their violence would be limited. However, unlike a nation-state that either manufactures their own weapons or purchases them from a few sources, Al Qaeda procures weapons from scores of states, companies, and various organizations around the world.

Locating the weapons arsenals of Al Qaeda cells is necessary to disrupt Al Qaeda operations and intelligence is critical to locating weapons. For example, in fighting the Iraqi insurgency, when intelligence organizations locate the weapons arsenals of insurgents, Special Forces destroy them. In another example, US Special Forces dressed in civilian clothes went into Georgia and closed off the flow of arms from Al Qaeda operatives in Georgia to Chechnyan rebels.³³ Al Qaeda disperses their arsenals around the world, usually keeping weapons in residential areas. Al Qaeda cells use houses or apartments in urban areas as arsenals and Al Qaeda cells are directed to keep records of their weapons.³⁴ Since, Al Qaeda cells keep records of weapons, intelligence operations might be able to find these records and determine their quantity and locations.

Al Qaeda is also interested in procuring weapons of mass destruction (WMD). Bin Laden purchased one kilogram of uranium from South Africa and hired an Egyptian nuclear scientist.³⁵ Al Qaeda used its scientific research business in Sudan to investigate the use of chemical, biological, radioactive, and nuclear (CBRN) terrorist attacks and CBRN research was initiated with support from the Sudanese military.³⁶ This business, located in Khartoum, designed and developed new explosive devices for Al Qaeda cells. Some experts and some media outlets believe that Al Qaeda is still in the market for WMD.

Al Qaeda terrorists require passage into and out of many countries to conduct activities in preparation for and execution of terrorist attacks. To move among countries, terrorists require certain documents such as passports and visas. Since most Al Qaeda members use false identities they are unable to acquire legal documents so they need to manufacture false documents. The Al Qaeda Finance and Business Committee operates a special office for forging false passports and entry certificates.³⁷ The ability to produce false documents enables Al Qaeda to survive and grow as a terrorist organization. So, false documents are an organic essential of the Al Qaeda system.

Destroying the ability to forge these documents would disrupt Al Qaeda's movement. Disrupting the movement of Al Qaeda terrorists between countries would limit their ability to physically move money across borders, limit their ability to use couriers across borders, limit their ability to commit terrorist attacks across borders, and increase the potential for arresting known terrorists. One method to increase terrorist identification and reduce their travel is to standardize international passports, visas, and other documents. So, inspectors and customs officials can more easily identify forgeries. In doing so, they can arrest terrorists. To disrupt the manufacture of false documents would limit Al Qaeda abilities to move across borders and finance operations with counterfeit currency.

Where do Al Qaeda members eat, sleep, work and plan operations? Al Qaeda members take sanctuary in numerous countries. To meet the basic needs for themselves as individuals and for the organization, Al Qaeda cells use host states, either as welcome guests or parasites. As welcome guests, Al Qaeda members take sanctuary in sponsor states. Sponsor states provide Al Qaeda with sanctuary and some sponsor states provided Al Qaeda with money, weapons, training, logistic support or use of diplomatic facilities. Without state sponsorship, Al Qaeda takes sanctuary as parasites either overtly or covertly. They take overt sanctuary in countries that publicly claim a policy against terrorism, but are either incapable or unwilling to go after Al Qaeda cells. Al Qaeda takes covert sanctuary in liberal democratic states that have anti-terrorist policies, but Al Qaeda members live in the seams of liberal

democracy that provides individual rights and freedoms. Consequently, there are Al Qaeda members in countries with authoritarian governments and in many liberal democratic states, including the US and Iraq.

Al Qaeda leaders have been in Somalia, Sudan, Yemen, Pakistan, Afghanistan, and others. They continually move due to changing circumstances. In 1990, bin Laden re-organized Al Qaeda while in Sudan but by 1996, Sudan asked Al Qaeda to leave because of international pressure.³⁸ Bin Laden then moved Al Qaeda to Afghanistan because the Taliban offered better sanctuary and was empathetic to Al Qaeda's ideology and political objectives. The invasion by the US-led military coalition effectively destroyed Al Qaeda's sponsored sanctuary in Afghanistan and drove bin Laden into hiding. By 2003, Al Qaeda leaders were believed to be in Iran by invitation. The mullah government of Iran acknowledged the presence of Al Qaeda in their country in July 2003.³⁹ Al Qaeda leaders were also suspected of hiding in Pakistan uninvited, but Pakistan was incapable of finding them.

Destroying sanctuaries is difficult. To destroy state-sponsored sanctuary such as Afghanistan, and sanctuary in a state unwilling to act against Al Qaeda such as Iraq, required regime change in those countries. To destroy sanctuary in a country that is willing but incapable of preventing it requires US or coalition intervention that could mean domestic political issues for the state in question. Destroying sanctuary in willing and capable countries is also difficult because Al Qaeda cells hide in the seams of constitutional governments such as the US. Consequently, all Al Qaeda sanctuaries cannot reasonably be destroyed simultaneously, so they must be destroyed sequentially using a combination of intelligence, law enforcement, and military Special Forces of a host nation.

Infrastructure

The ring surrounding the organic essentials is infrastructure with its subsystems. Col Warden identifies industry and transportation nodes such as ports, bridges, rail lines, and airfields as the infrastructure found in a conventional nation-state enemy.⁴⁰ Al Qaeda uses a host nation's transportation capabilities. So the question becomes, what effect on the transportation nodes will disrupt Al Qaeda's use of them? In addition to transportation nodes, Al Qaeda has its own infrastructure that can be disrupted or destroyed. Bin Laden began building an infrastructure of companies in Sudan and the training camps in Afghanistan.

During a conventional war, troops and supplies are moved across transportation nodes on a regular and routine basis to keep the enemy's military supplied. Al Qaeda as an NGO depends on the transportation infrastructure of host states. To destroy a host state's transportation nodes is a violation of that state's sovereignty and an act of war. Furthermore, Al

Qaeda cells use a host state's transportation infrastructure on a very limited basis perhaps several times in the preparation phase of an attack and once to execute an attack. So, to destroy a state's infrastructure to disrupt or divert Al Qaeda will impose detrimental effects on that host state's commerce and economy. The costs outweigh the benefits of destroying a host state's transportation nodes. So, we need to look at soft power alternatives to effect Al Qaeda transportation.

Soft power means have been used in the past to disrupt Al Qaeda's use of host state transportation capabilities. For example, following the 9/11 attacks, President Bush stood down the US air transportation system to great effect. Media outlets reported that there were other Al Qaeda operatives intent on hijacking US aircraft with the further intent of destroying other US landmarks on 11 September 2001 and it is believed that standing down the air transportation system prevented these attacks. Another soft power means to disrupt terrorist operations was employed by coalition forces in Iraq during the counterinsurgency operations that followed the removal of Saddam Hussein from power. Coalition forces in Iraq set-up road blocks at key transportation nodes to capture Al Qaeda members.⁴¹

Another subsystem of Al Qaeda's infrastructure is composed of Al Qaeda's companies and businesses. Bin Laden purchased a headquarters building and started over 30 businesses that included scientific research, civil engineering, manufacturing, transportation, construction that bought explosives for blasting rock, and two farms that were developed as terrorist training centers.⁴² These companies had dual purposes in that they raised money and conducted logistical support for Al Qaeda's terrorist operations. Eventually, these companies grew beyond Osama bin Laden's management capabilities and he hired non-Al Qaeda personnel to manage them.⁴³ US surgical military strikes in 1998 were employed against Al Qaeda infrastructures in Sudan and Afghanistan, two countries unwilling to act against Al Qaeda. Following the Al Qaeda attacks on the two US embassies in Africa, President Clinton responded with two cruise missile attacks. One of those attacks destroyed a pharmaceutical plant that was actually a scientific research laboratory in which Al Qaeda was researching WMD.⁴⁴ The pharmaceutical plant was owned by bin Laden and located in Khartoum. The second missile attacked an Al Qaeda training camp in Afghanistan.

Al Qaeda's terrorist training camps in Afghanistan took on a boot camp quality in which recruits learned the basics of armed fighting. Al Qaeda basic training pertains to guerilla warfare and Islamic law (*sharia*); advanced training involves the use of explosives, assassination techniques and heavy weapons.⁴⁵ Al Qaeda's *sharia* training program was derived from Al Qaeda's own ideology, which professes violence against all non-believers of

Islam and apostate governments, which Al Qaeda defines as the current governments of countries with Muslim populations. Al Qaeda also wrote and distributed a training manual to its terrorist cells around the world. In addition, training camps in Afghanistan employed a 7,000-page *Encyclopedia of the Afghan Jihad* covering tactics, security, intelligence, handguns, first aid, explosives, grenades and mines, tanks, manufacturing of arms and explosives, etc.⁴⁶ While operating from Afghanistan, Al Qaeda did a good job in training its terrorist militia. During the war in Afghanistan against the Taliban government, the coalition military forces destroyed Al Qaeda's terrorist training camps.

Al Qaeda today uses the Imam Ali camp in Iran. "The Al Quds Force based in Tehran trains operatives from terror organizations such as Hezbollah, Hamas, and Islamic Jihad at the Imam Ali camp in Iran."⁴⁷ This camp could be destroyed, but military action against the Imam Ali camp would certainly violate Iranian sovereignty and most likely be viewed by the Iranian government as an act of war. Furthermore, military action could prompt an Iranian response, such as the closure of the Hormuz Straits, which might result in war with Iran or worse, a regional war. The cost of war with Iran carries with it the potential for regional instability, which may be too high a price to remove the Imam Ali training camp in Iran.

Population

The ring surrounding the infrastructure is population. Col Warden addresses the need to "induce any enemy population to offer some degree of resistance to its government's policies."⁴⁸ Col Warden refers to a conventional population ring such as an enemy nation-state's population. However, unlike a conventional nation-state Al Qaeda asserts itself as the voice of the entire worldwide Muslim population, which totals 1.3 billion people in scores of nation-states across Africa and Asia. This is the population that Al Qaeda hopes to subjugate under their Islamic *caliphate*. Al Qaeda realizes the importance of the world's Muslim population. "Al Qaeda seeks & nurtures Muslim public support. In the absence of this popular support, the Islamic movement would be crushed."⁴⁹ Consequently, these people are the target of Al Qaeda policies and in many countries Muslim people seemingly support Al Qaeda over their own government's policies. In examining Al Qaeda as a system, the population ring includes all subsystems that effect the whole Muslim population around the world, which are social discontent, Muslim people, ideology, and Islamic scholars.

Al Qaeda gains support out of social discontent, which rises from poor economic conditions caused by poor economic policies of autocratic governments. This issue is particularly prevalent throughout the Muslim world. Only three Islamic countries meet the

International Freedom House criteria as free countries and none of those are Arab countries.⁵⁰ Correspondingly, the 56 member states of the Organization of the Islamic Conference hold 20% of the world's population yet their combined gross domestic product (GDP) is less than that of France and the literacy rate among Muslim worldwide is 40 percent.⁵¹ These facts, combined with the overwhelming Muslim desire for economic prosperity, create the conditions necessary for discontent.⁵² Vastly better economic conditions occur in liberal democracies where individual equal rights, the rule of law, and participatory government are the political norms that enable economic prosperity. The elections in Afghanistan and Iraq increase credibility to the belief that Muslims overwhelmingly desire the freedoms that liberal democracies enjoy and believe that democracy can work with Islam. In many countries with majority Muslim populations, autocratic governments erroneously espouse democracy to push their autocratic economic policies that fail to achieve economic prosperity for the population. In the Muslim world, if autocratic governments were to transition into liberal democracies, that would improve economic prosperity, which would dramatically reduce social discontent among Muslims. Through the State Department's Middle East Partnership Initiative, the US is working with Islamic governments to liberalize their autocratic economic policies and increase the number of the democratic processes and policies in their governments.⁵³

Al Qaeda's Islamic extremism appeals to many Muslims because of social discontent that grows from a lack of basic human freedoms prevalent in Islamic governments, which are seen by many Muslims as oppressive. There are Muslims that see Al Qaeda as the solution to this problem, so they support Al Qaeda morally and financially. A basic Islamic extremist strategy is to secure popular support and it seems to be working for Al Qaeda. A Pew Global Attitudes survey released in July 2005 revealed that support for bin Laden has increased since 2003 from 55 percent to 60 percent; 25 percent said that they had "a lot of confidence" in bin Laden; 57 percent said violence against civilian targets was "often/sometimes justified," which was up from 43 percent in 2002; 87 percent said Islamic terrorism was not a threat to their country.⁵⁴

One of Sun Tzu's dictums of war is that the best strategy is to attack the enemy's strategy. So, if Al Qaeda's strategy is one that wins the hearts and minds of Muslims, than a counter strategy will draw the hearts and minds of Muslims away from Al Qaeda. A winning strategy against Al Qaeda would gain popular support of Muslims worldwide and should separate Al Qaeda from the Muslim population that supports them.⁵⁵ A winning strategy would also promote Muslims' desire for individual freedoms. The US-led coalition is building Muslim support against Al Qaeda in Afghanistan and Iraq by establishing democracies in which the

people of those countries will enjoy individual freedoms. A winning strategy would also make available to the population public utilities and services, which the US is doing in Afghanistan and Iraq. A winning strategy would also discredit violent Islamic extremists. Exposing Al Qaeda as the antithesis of freedom and economic prosperity and an organization that incites mass murder would help dissolve Al Qaeda's Muslim support. For example, the Koran says that the rights of men and women are equal, yet the Taliban suppressed women's rights with Al Qaeda's blessing and support. The attributes of a winning strategy against Al Qaeda resemble a counterinsurgency strategy, where the popular support is critical to success. Counterinsurgency training requires an emphasis on ethical considerations, force discipline, cultural sensitivity, the ability to communicate across cultural boundaries, and the ability to innovate and adapt.⁵⁶

Many Muslim scholars propagate the belief that the US seeks to change their culture and they perceive liberal democracies as decadent societies in moral decline. In reality, the US seeks to create individual freedoms for all Muslims and create representative governments with free market economies within Muslim states because these liberties will create stable Islamic countries and reduce Al Qaeda influence. The achievement of these US objectives is congruent with Islam and will enhance Muslim culture. The perception of decadence and moral decay emanates from the freedom of press. Muslims see US television shows and believe that those shows represent US society and culture. Muslims need to understand that television shows and movies are predominantly fiction and created to spark interest in the viewer. News items on media broadcasts identify the exception rather than the norm of US society and culture. The US has its abnormalities the same as Muslim countries do. The difference is in the freedom of the press to report it. To convey these messages to Muslims, it is necessary to bring the influential people of Islam into the discussion and to listen to Muslim concerns.

In communicating the congruency of US objectives with Islam, the US can dialogue through NGOs with *sheikhs*, *imams*, and *ulemas*, which are the Islamic scholars within the different sects of Islam. These Islamic scholars already play a political role that influences Muslims. Since Islam is both a religion and a political methodology, US dialogue with Islamic scholars would promote the congruency of liberal democracy with Islamic culture and tradition. Providing them the respect of dialogue would further US foreign policies and objectives. In addition, dialogue with Islamic scholars will inspire them to cease their anti-American preaching and end their support for Al Qaeda.

Ideology is a powerful subsystem of Al Qaeda's population ring. Al Qaeda espouses a pan-Muslim ideology designed to appeal to Muslims worldwide. Al Qaeda's ideology draws sympathies from Muslim populations across the globe and those sympathies develop into

sponsorship by some Muslim governments, organizations, and individuals. Those sponsorships further develop into financial support and recruitment. It is useful to understand how Al Qaeda moved toward terrorism as a means to its objective. It is also useful to understand how a violent extremist ideology develops.

Randy Borum cites three attributes needed for an ideology to move toward terrorism.⁵⁷ Al Qaeda displays these three characteristics. First, a set of beliefs are employed to guide and justify the terrorist organization edicts. The *fatwas* issued by Osama bin Laden in 1996 and 1998 reflect this first attribute. Second, those beliefs must be unquestionable or members accept these unquestionable basic beliefs for reasons of security and God's will. The Al Qaeda Training Manual in its second lesson identifies the required character for members of Al Qaeda, which directs their members to accept the Al Qaeda beliefs unquestionably.⁵⁸ Third, the organization must have objectives that serve some cause. Al Qaeda's objectives serve their cause of a pan-Islamic *caliphate*, which they have decided to achieve through violent extremism.

Frederick Hacker cites three stages in the development of violent extremism: The first stage is an awareness of oppression; the second stage is the recognition that oppression is avoidable; the third stage is a realization that you can act against oppression.⁵⁹ These three stages are apparent in Al Qaeda's ideology. First, Al Qaeda identifies the governments in the Islamic world as oppressive apostate governments. Secondly, Al Qaeda proposes a single Islamic government to replace them based on *sharia*, which is a set of Islamic rules, regulations, and laws based on the Koran. Thirdly, bin Laden states in his second *fatwa* that all changes in government in the Islamic world have occurred due to force.⁶⁰ These three stages build Al Qaeda's argument to overthrow the governments in the Muslim world.

Al Qaeda portrays its ideology as one that embrace self-governance for all Muslims. Al-Zawahiri writes, "Indeed, it's imperative that, in addition to force, there be an appeasement of Muslims and a sharing with them in governance and in the Shura council and in promulgating what is allowed and not allowed."⁶¹ However, Al Qaeda intends to exclude non-Sunni peoples. Al-Zawahiri writes about awakening the Sunni against the Shia and their collusion with the Americans to occupy Iraq. In addition, Al-Qaeda intends to dictate the *sharia* to the people. Al Zawahiri wrote: "We must not throw the masses-scant in knowledge-into the sea before we teach them to swim."⁶² Al Qaeda talks about bringing the people into the governing system, yet their objective clearly points to many limitations and restrictions to the concept. It is obvious that Al Qaeda is interested in neither the welfare nor self-governance of Muslims.

Fielded Forces

The outermost ring, the fifth ring of the model is fielded forces, which correlates directly to a nation-state. Col Warden correctly asserts that the fielded forces function is to protect the inner rings of the system. However, Al Qaeda too has fielded forces who are Al Qaeda's operatives. Unlike nation-states that protect their population with fielded forces, Al Qaeda's fielded forces hide among the populations of the host countries in which they take sanctuary. In addition, Al Qaeda's fielded forces, rather than protecting the population, seek protection from the population, and commit violent attacks on the population. For Al Qaeda as a system, the subsystems of fielded forces are recruits and Al Qaeda's networked terrorist cells.

A couple of theories explain why people join terrorist organizations. Al Qaeda's ideology attracts Muslims, especially young ones, to Al Qaeda's ideal of *jihad* against apostates and infidels. These Muslims have no job, nor personal goals in their life, and when they join Al Qaeda, they feel that they are part of something important. This attraction is fueled by the teachings of extremist *imams* and *ulemas* in *madrasas*, which are schools of violent extremist Islam ideology. Muslim countries do not have public schools and because of the poverty in most Muslim countries, parents send their children to *madrasas* to get educated because the cost is paid by Islamic charities. In one example, a strong supporter of Al Qaeda, Ulema Mauana Fazlu Rehman, operated several *madrasas* in Pakistan, which provided recruits for the Taliban.⁶³ These schools teach violent Islamic extremism as a method to cure Muslim social discontent. They also do not teach the attributes needed to survive in a global economy.⁶⁴ *Madrasas* have historically produced recruits for Al Qaeda.

One method to combat the violent Islamic extremism taught in *madrasas* is for the US government to assist Muslim countries in setting up public education systems. If Muslim countries had public education systems, parents would be less likely to send their children away for an education. Consequently, *madrasas* would find it difficult to recruit children as students, and as a second order consequence, children would not be schooled in violent Islamic extremism.

Another theory of why people join terrorist organizations is that they do it for their own needs. For people that join a terrorist organization, Martha Crenshaw cites four categories of motivation: First is the opportunity for action; second is the need to belong; third is the desire for social status; and fourth is to acquire material reward.⁶⁵ Al Qaeda certainly provides action, belonging, and material reward. They also provide status for those who believe that they will be martyred for suicide attacks. These categories of motivation can be better fulfilled through a

political system in which these young people find an avenue to achieve action, belonging, status, and material reward that is beneficial to their society.

Recruiting is a subsystem because if Al Qaeda were unable to recruit, they would have no operatives. If recruitment were disrupted, Al Qaeda would be forced to reduce the number of terrorist activities and attacks. If potential recruits could achieve action, social status, a sense of belonging, and material reward in their lives, they may be less likely to join Al Qaeda. If children were educated in a public school instead in *madrasas*, they would be less likely to join Al Qaeda.

Al Qaeda cells are the operational unit of Al Qaeda and a subsystem of fielded forces. Members of Al Qaeda cells are located in scores of countries worldwide and the global trend toward urbanization means that Al Qaeda cells frequently live and work in urban areas. Intelligence is required to identify where Al Qaeda cell members live and work. They typically rent apartments located on the ground floor away from isolated or secluded areas and in newly developed areas, but never near police stations and government buildings.⁶⁶ Capturing Al Qaeda cell members rather than killing them has the benefit of garnering potential intelligence information. However, few members of Al Qaeda cells know the real names of the people or the details about the people that interact with them. Before being inducted into Al Qaeda, new members always received, or chose, an alias.⁶⁷ Only select Al Qaeda leaders know the personal information of cell members. This makes garnering intelligence information from captured Al Qaeda cell members difficult.

Al Qaeda incurs costs related to its cell members such as medical care and family dependency for members killed or imprisoned. Al Qaeda members and their families are reimbursed for medical treatment and hospital expenses.⁶⁸ Rohan Gunaratna in his book *Inside Al Qaeda* notes that due to Al Qaeda attacks in Egypt and Saudi Arabia, "thousands of their [Al Qaeda] members were jailed, and caring for their families was a huge financial undertaking."⁶⁹ The undertaking is necessary for Al Qaeda because they need to show their members and recruits the moral value of belonging to Al Qaeda. As a consequence, captured Al Qaeda members kept in jail necessitates Al Qaeda paying their families' living expenses. A second-order effect of this is that family members will visit them in prison and intelligence can be gathered on those family members to investigate Al Qaeda operations such as how Al Qaeda provides family members their income, from what bank, courier, etc. An additional consequence is if Al Qaeda finances get to a level where they can no longer afford to care for dependents, they would be forced to eliminate family support for jailed members. Jailed members would find out that Al Qaeda abandoned their families and would become

discontented with Al Qaeda. As a second-order consequence, these jailed operatives may provide more information on Al Qaeda personnel and operations to intelligence organizations. Another second-order effect of this is that potential recruits and Muslim populations would also find out that Al Qaeda is not caring for dependents, which could result in reduced recruitment and reduced support of Al Qaeda from the Muslim people.

Summary and Results

Col Warden's five-ring model is a useful tool in analyzing Al Qaeda because it assists in determining the unique subsystems in each of the five rings. The first ring, leadership, revealed Osama bin Laden, communications, and alliances as subsystems of leadership of the Al Qaeda system. The second ring, organic essentials, encircled the leadership ring and included as subsystems money, weapons, false documents, and sanctuaries. The third ring, infrastructure, surrounded the organic essentials and included as subsystems commercial transportation nodes, Al Qaeda businesses, and training camps. The fourth ring, population, enclosed infrastructure and included as subsystems social discontent, Muslims, Islamic scholars, and ideology. The fifth ring, fielded forces, included as subsystems recruits and Al Qaeda cells.

An additional result was the determination of the worldwide Muslim population as a more critical subsystem of Al Qaeda than the other subsystems determined by the five-ring model. The worldwide Muslim population, if effected properly, could disrupt or destroy Al Qaeda as a threat. Currently, the Muslim population, which is 1.3 billion people, resides in countries that overwhelmingly have autocratic governments. These autocratic governments provide little services, education, individual equal rights, economic prosperity, and participatory governance to their Muslim people. As a consequence, social discontent is prevalent and widespread among Muslims, which fuels violent Islamic extremism and also incites young Muslims to join Al Qaeda.

A logical next step to this analysis would be the development of a strategy that effects the worldwide Muslim population. Perhaps that strategy could include a means to incite Muslim governments to increase liberal democratic reforms. Perhaps that strategy could recommend ways for the US to assist Muslim governments in providing public education and public services for their citizens. Perhaps that strategy could recommend the means for US public diplomacy to convey its desire for all Muslims to live their lives as they choose in which their government allows their representative participation in governance, individual equal rights, and freedom to prosper under a free-market economy.

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